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CORRELATION OF TWO DIFFERENT LOCAL HEMOSTATIC MODALITIES IN ORAL SURGERY PATIENTS WITH ORAL ANTICOAGULANTS

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Dental extractions are a common procedure in patients who receive oral anticoagulant treatment. The management of the patients receiving oral anticoagulation and requiring dental extractions has altered in recent years as an appreciation of the need to balance the risk of a postextraction hemorrhageagainst the risk with potentially a more serious outcome of a thromboembolic event has materialized. In the past, some authors (**Gaspar R., Borea et al.**) have proposed that anticoagulant treatment be stopped for several days extraction; others (**Blinder D., Halfpenny W., Lewandowski B., Sindet Pedersen S. et al.**) have proposed reducing the dose of anticoagulant intake for several days before the extraction. In recent years, continuation of anticoagulant therapy in oral surgical procedures has gained moreattention in the literature, which emphasizes the role of local hemostasis.

AIM

The objective of this study was to compare the clinical hemostatic effect of tranexamic acid mouthwash and resorbable oxicellulose dressing for the prevention of postextraction hemorrhage in patients receiving continuous oral anticoagulant therapy.

MATERIAL AND METHODS

First group of 25 patients (with a preoperative International normalized Ratio INR in the range of 1.8 to 3.0.) had oral surgical interventions performed with the use of local anesthesia. After the interventions tranexamic acid (5%) mouthwashing was used for two minutes, four time daily during a postoperative period of four days. The second group of 25 patients (with a comparable INR range of 1.9 to 2.9) had oral surgical interventions performed and the socket(s) dressed with a resorbable oxycellulose dressing and sutured with a resorbable suture.

A total of 50 patients receiving oral anticoagulnts were treated. The patient details of the two groups are shown in Table II. No patients from either the 5% Tranexamic acid mouthwashing or Surgicel group experienced immediate postoperative bleeding. One patient from the 5% tranexamic acid mouthwashing group (age, 59.0 years; INR, 2.9; single tooth surgical extraction, 15 minutes' duration) had a postextraction hemorrhage at 24 hours necessitating further suturing, as did a patient from the Surgicel group (age. 68.6 years; INR, 3.0; single tooth simple extraction, 15 minutes' duration). A single patient from the Surgicel group required hospital admission with a persistent intermittent bleed (age, 81.8 years; INR, 3.0; surgical extraction of 6 teeth, 60 minutes' duration); hemorrhage was stopped after 48 hours, although his admission was prolonged because of social factors. No discernible difference in the postoperative outcome with regard to hemorrhage was noted. Postoperative pain was reported more frequently in the group that used a resorbable oxycellulose dressing. Only 1 patient had significant postoperative bleeding. Before commencement of the study local ethical committee approval was sought and granted. Pain was recorded on a visual analogue scale and graded as "no pain," "moderate pain," or "severe pain.
" It was reported in both groups in varying severity (Table III).

RESULTS:

Table I. Indications for anticoagulation and ideal therapeutic range

Indication	*Ideal INR*	*No. of patients*
Deep vein thrombosis	1.8-3.0	7
Valvular disorders	2.0-3.0	13
Prosthetic valve replacement	2.5-3.0	5
Coronary artery bypass graft	2.1-3.0	10
Cerebrovascular accident	2.0-2.9	7
Procoagulation disorder	1.9-2.8	8

Table II. Patient and treatment details

Demographics	*First group (Tranexamic acid)*	*Second group (Surgicel)*
Number	25	25
Male:female	13 :17	11 : 9
Age, range (y)	33.4 - 83.4	38.2 - 79.3
Age, mean (y)	66.5	64.8
INR, range	1.8 - 2.9	1.9 - 3.0
INR, mean	2.3	2.4
Extractions		
No. of teeth, range	1 - 6	1 - 4
No. of teeth, mean	2	1.5
Difficulty of extraction		
Simple	14	19
Surgical	9	6
Duration, range (min)	2 - 36	3 - 25
Duration, mean (min)	19	14

Table III. Details of postextraction pain experienced in the firs and second group

Severity of pain	*First group (Tranexamic acid) (n = 25)*	*Second group (Surgicel) (n = 25)*
No pain	12	8
Moderate pain	5	16
Severe pain	3	2

Discussion

In this study limited numbers preclude statistical evaluation; however, there appears to be little difference between the two treatment modalities with respect to postoperative hemorrhage. Postoperative pain was reported more frequently in the Surgicel group, although the reasons for this are unclear. The single patient requiring admission with postextraction hemorrhage had the most teeth removed (6), the longest procedure (60 minutes), and was 1 of the oldest patients (81.8 years) All patients were reviewed at I week in the absence of any postoperative complications requiring earlier review, and the incidence of postoperative bleeding, pain, and other complications was noted.

Conclusion

1. This study supports previous findings that severe postoperative hemorrhage is not generally a problem after dental extractions on patients receiving oral anticoagulant therapy whose anticoagulant regime has not been altered and who are treated under local analgesia on an outpatient basis with local measures.
2. This study shows that in patients receiving oral anticoagulants whose INR is within the therapeutic range, the tranexamic acid mouthwash is as effective as the resorbable oxycellulose dressing in preventing post oral surgical hemorrhage.